

ABSTRACT OF THE DISCLOSURE

A tracking error detection apparatus comprises a photodetector comprising plural photoreceptor elements; zerocross detection circuits for detecting zerocross points at which two sequences of digital signals intersect the center levels of the respective digital signals, which digital signals are generated according to the amounts of light received by the respective photoreceptor elements and are outputted from the photodetector; a phase difference detection circuit for performing phase comparison using a distance between zerocross points of the two sequences of digital signals, and outputting a result of phase comparison; and a low-pass filter for performing band restriction to a signal outputted from the phase difference detection circuit, thereby to obtain a tracking error detection apparatus. When a phase difference between the two sequences of digital signals, which is detected by the phase difference detection circuit, is larger than a maximum value of a theoretical tracking error signal, the output from the phase difference detection circuit is limited.